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Innovation a
Business I

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ACCOUNTABILITY STATEMENT

The business plan for the three years commencing April 1, 2005 was prepared under my direction in accordance *Government Accountability Act* and the government's accounting policies. All of the government's policy decision March 21, 2005 with material economic or fiscal implications of which I am aware have been considered in prepa business plan.

The Ministry's priorities outlined in the business plan were developed in the context of the government's business

plans. I am committed to achieving the planned results laid out in this business plan.

[original signed]

Victor Doerkson, *Minister of Innovation and Science*

March 24, 2005

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THE MINISTRY

The Ministry includes:

- Department of Innovation and Science
- Alberta Science and Research Authority and its associated institutes, including: Alberta Agricultural Research Institute; Alberta Energy Research Institute; and Alberta Forestry Research Institute
- Alberta Research Council Inc.
- iCORE Inc. (Alberta Informatics Circle of Research Excellence)

The Minister of Innovation and Science is responsible for legislation pertaining to the Alberta Heritage Foundation for Science and the Alberta Heritage Foundation for Science and Engineering Research (operating under the trade name "Alberta Ingenuity Fund").

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VISION

Alberta prospers through innovation.

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MISSION

To enhance the contribution of innovation, science, research and development and its application to the sustainable prosperity and quality of life of all Albertans.

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CORE BUSINESS: INNOVATION

Government's Strategic Plan, *Today's Opportunities, Tomorrow's Promise*, has identified "Unleashing Innovation" as an area of opportunity on which government efforts will be focused over the next 20 years. Innovation and Science is championing Government of Alberta efforts to unleash innovation. Ministry activities are grouped under a single core business – Innovation.

Ministry efforts are focused on:

- Accelerating innovation in Alberta, with emphasis on increasing commercialization of research, and industry
- Building the capability and capacity of the research system.
- Building research excellence in the priority areas of energy, information and communications technology (ICT) and sciences.
- Encouraging and supporting innovation within the Government of Alberta.

During 2005-08, Innovation and Science will lead a coordinated effort with other ministries to implement the approach strategy, "Accelerating Innovation in Alberta." Endorsement of the recommendations reflects a commitment by government to strategically invest in the knowledge-based economy by adopting a policy target to move toward investing up to 1% of Government of Alberta's annual budget in support of its innovation agenda, over the next ten years.

These efforts will position Alberta to capitalize on the opportunities in the knowledge economy.

The Ministry is building a foundation for the long-term prosperity of the province by building excellence in priority areas including 7 of the 8 priority areas identified in the value-added strategy, *Securing Tomorrow's Prosperity*. Over the next five years, the Ministry collaborated with partners to develop a number of strategies that serve to strengthen Alberta's capacity:

- *Accelerating Innovation in Alberta*
- *The Alberta Energy Innovation Strategy*
- *Growing our Future: An Integrated Life Sciences Strategy for Alberta*
 - *The Agriculture Research and Innovation Strategic Framework* (developed in partnership with Agriculture and Rural Development)
 - *The Forestry Research Strategic Plan*
- *Information and Communications Technology: A Strategy for Alberta*

The five goals contained in this business plan reflect the implementation of these strategies.

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LINK TO THE GOVERNMENT OF ALBERTA STRATEGIC BUSINESS PLAN

LINK TO 20-YEAR STRATEGIC PLAN

Innovation and Science activities support the areas of opportunity identified in *Today's Opportunities, Tomorrow's*:

Opportunity 1: Unleashing Innovation

This business plan reflects strategies to strengthen Alberta's capacity for innovation, with an emphasis on: building capability and capacity of Alberta's research system; building excellence in three priority areas (energy, ICT and developing, attracting and retaining highly qualified professionals; encouraging technology commercialization; and the growth of knowledge-based industries.

Opportunity 2: Leading in Learning

This business plan emphasizes "investing in people" as the key resource for future prosperity. Supporting programs for citizens, attracting and retaining world class researchers and entrepreneurs, providing financial and infrastructure support for graduate students and others training to become knowledge workers, and celebrating lifelong learning opportunities and achievements will contribute to the success of learning as a key component in achieving tomorrow's promise.

Opportunity 3: Competing in a Global Marketplace

Innovation is a key for success in the global marketplace. This business plan focuses on strengthening Alberta's innovation to enhance long-term economic stability and global competitiveness.

LINK TO MEDIUM-TERM STRATEGIES

Innovation and Science is a lead ministry for the following Medium-Term Strategies:

- *Accelerating Innovation in Alberta*
- *Alberta Energy Innovation Strategy*
- *Growing Our Future: An Integrated Life Sciences Strategy for Alberta*

Innovation and Science activities support the objectives of the following Medium-Term Strategies:

- *Climate Change Strategy*
- *Water for Life: Alberta's Strategy for Sustainability*
- *Rural Development Strategy*

LINK TO OTHER MULTI-DEPARTMENT STRATEGIES

Innovation and Science is also a lead ministry for the following multi-department strategies:

- Securing Tomorrow's Prosperity (value-added strategy)
- Agriculture Research and Innovation Strategic Framework
- Forestry Research Strategic Plan
- Information and Communications Technology: A Strategy for Alberta

LINK TO GOVERNMENT OF ALBERTA BUSINESS PLAN GOALS

This business plan is aligned with and directly supports the achievement of Goal One of the 2005-08 Government of Alberta Strategic Business Plan:

Goal 1: Alberta will have a diversified and prosperous economy.

Ministry activities aim at growing the knowledge-based economy in Alberta and adding value to important resource industries like energy, agriculture and forestry, ensure Alberta's long-term prosperity.

The activities outlined in this business plan also support the achievement of the following Government of Alberta goals:

Goal 2: Albertans will be well prepared for lifelong learning and work.

Various ministry programs support the training of graduate students who will become tomorrow's researchers and participants in a highly qualified workforce needed to support innovation and create opportunities.

Goal 3: Alberta's international competitiveness will be enhanced.

Innovation is a critical source of international economic competitiveness. Ministry efforts are focused on strengthening Alberta's capacity for innovation.

Goal 5: Albertans will be healthy.

The Ministry provides support for health related research through investments in basic research infrastructure. Health (including the safety of the food supply) is an important component of *Growing Our Future: An Integrated Life Science Strategy for Alberta*.

Goal 11: The high quality of Alberta's environment will be sustained.

The Ministry supports research activities aimed at improving Alberta's environment including climate change research and alignment of current water research activities in support of the *Water for Life Strategy*.

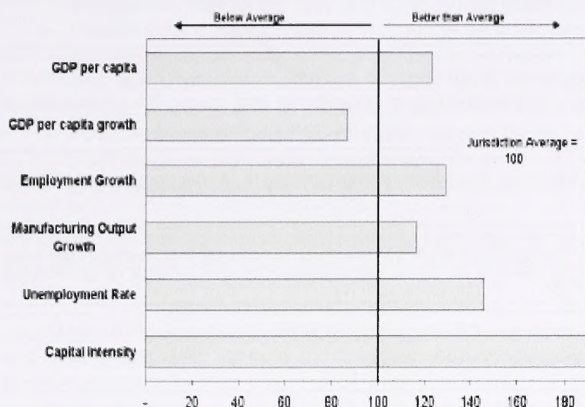
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SIGNIFICANT OPPORTUNITIES AND CHALLENGES

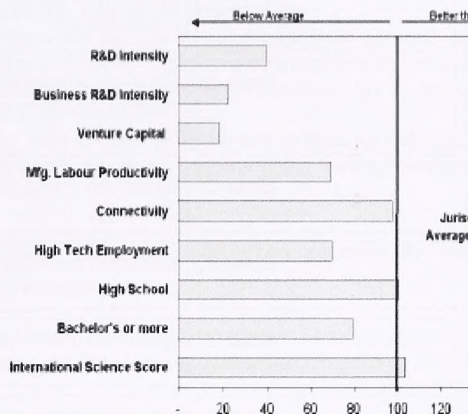
Challenges:

- Alberta is a player in an intensely competitive global economy. Improving Alberta's innovation capacity is critical to the province's long-term economic competitiveness and quality of life.

Economic Indicators



Innovation Indicators



Source: Alberta Economic Development. Based on comparison with top performers in Canada, the U.S.A., and Europe. Comparison chosen on the basis of strong relative economic and innovation performance, and size and structural similarities with Alberta.

Opportunities:

- The Government of Alberta has put a clear priority on developing value-added sectors of the economy. Mir are aligned with government's value-added strategy, *Securing Tomorrow's Prosperity*.
- Making investments in priorities that will build capacity for long-term prosperity in energy, ICT and life science.
- Responding to provincial initiatives reflected in the government's Medium-Term Strategies including: *Water Alberta's Strategy for Sustainability* and the *Climate Change Strategy*.
- Building on Alberta's strengths in priority areas. Alberta is well positioned to leverage federal investment in provincial priorities.
- Building on the capability of post-secondary institutions to develop, attract and retain highly skilled people to support the growth of a knowledge-based economy in Alberta.
- Encouraging greater industry investment in research and innovation. Industry plays a critical role in the innovating new ideas and turning them into new products, processes and services in the global marketplace.
- Ensuring that the appropriate infrastructure is in place to support applied research and successful commercial new products and services.
- Bringing together the right mix of management mentorship and access to capital to encourage and sustain entrepreneurial ventures.

Only through addressing these challenges and embracing the opportunities will Alberta truly unleash its innovation and enhance Albertans' quality of life.

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STRATEGIC PRIORITIES 2005-08

Unleashing Innovation

The Ministry will champion and lead efforts to "Unleash Innovation" in support of the Government of Alberta's 20-10 Plan.

Linkage:	
Goal 1	Implement the approved strategy, "Accelerating Innovation in Alberta".

Goal 3	Implement the <i>Alberta Energy Innovation Strategy</i> , through the establishment of the E network of public and private sector partners from across Canada working to advance innovation.
Goal 5	Develop a coordinated water research strategy in support of <i>Water for Life: Alberta's Sustainability</i> to align and coordinate current investments, and guide future investment research.
Goal 5	Establish a Life Sciences Institute to lead the implementation of the approved <i>Life Sciences Strategy</i> .
Goal 2	Enhance collaboration and coordination with the Alberta Heritage Foundation for Medical Research and the Alberta Ingenuity Fund.
Goal 2	Build the National Institute of Nanotechnology into one of the world's foremost nanotechnology research and commercialization.
Goal 1	Implement two competitions under the Innovation Program to encourage innovation within the Government of Alberta.
Goal 4	Establish an ICT Institute.
Goal 1	Co-champion and support the implementation of the Economic Development and Innovation Initiative.
Goal 1	Support the implementation of government's value-added strategy, <i>Securing Tomorrow</i> .

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CORE BUSINESSES, GOALS, STRATEGIES AND PERFORMANCE MEASURES

CORE BUSINESS ONE: Innovation

GOAL 1: Accelerate innovation

What it means

Investments in research result in innovative ideas, products and processes that, if commercialized in Alberta, have the potential to yield significant economic and social benefits for the province. The Ministry is working to create an environment where new ideas are more likely to be developed and brought to market in Alberta, with a focus on: supporting applied research and strengthening the technology commercialization system; encouraging business growth in priority sectors; and encouraging innovation within the Government of Alberta.

Key outcomes associated with this goal:

- Increased application and commercialization of energy, ICT, and life sciences research in Alberta.
- Growth in Alberta's ICT and life sciences sectors.
- Increased implementation of innovative ideas and initiatives within the Government of Alberta, that improve or encourage innovation in the Alberta economy.

Strategies

1.1 Work with partners to support the implementation of the approved strategy, *Accelerating Innovation in Alberta*

- Work with partners to ensure there are adequate bridging/linking mechanisms to help industry work with the

community to effectively apply knowledge resulting from research activities.

- Work collaboratively with Economic Development and other partners to facilitate appropriate management assistance/mentoring and entrepreneurial skills coaching to start-up and small businesses.
- Position the Alberta Research Council as a key enabler in: supporting the pre-commercial development of new business, particularly smaller emerging and start-up companies; providing facilities and expertise to support and development in relevant industry sectors; encouraging firms to commercialize new technology in pursue global markets, and to improve investment readiness.
- Provide and facilitate the establishment of facilities, equipment, test beds and expertise to help Alberta public institutions and industry develop and commercialize new products, processes and services, through investment organizations such as TRILabs and the Banff New Media Institute.

1.2 Work with Finance and Economic Development to enhance the competitiveness of Alberta's business environment respect to encouraging technology commercialization and adoption.

1.3 Work with government departments, industry and research institutions to identify and market business opportunities and encourage seed venture funding from industrial partners, and promote the Alberta Advantage in priority areas.

1.4 Work with partners to encourage expatriates and skilled workers to locate to Alberta.

1.5 Administer the Innovation Program to support Government of Alberta efforts to develop and implement innovative initiatives that improve service delivery to Albertans or encourage innovation in the Alberta economy.

Performance Measures	Last Actual (year)	Target 2005-06	Target 2006-07	Target 2007-08
1.a Percentage of Government of Alberta Expense used to support innovation.	1.31% (2003-04e)	Increasing up to 5%, as affordable, by 2015.		
1.b Number of Albertans employed in knowledge-intensive (high-tech) companies.	110,000 (2003)	113,300	116,699	120,200
1.c Albertans employed in knowledge-intensive (high-tech) companies as a percentage of Albertans employed in all companies.	6.4% (2003)	6.4%	6.5%	6.6%
1.d Percentage of Canadian venture capital invested in Alberta.	4.45% (2003)	4.5%	5.0%	5.5%
1.e Alberta Business Expenditures on Research and Development (\$millions)	\$739 (2002)	\$770	\$801	\$834

Sources:

- Innovation and Science Annual Innovation Review and Government of Alberta Annual Reports.
- Economic Development, Alberta Business Monitor.
- Economic Development, Alberta Business Monitor.
- Macdonald and Associates Ltd.
- Statistics Canada, Service Bulletin Science Statistics.

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GOAL 2: Build research capacity in areas of strategic priority.

What it means

A critical building block supporting innovation is a strong research capability at Alberta universities, colleges and institutes. The Government of Alberta's commitment to supporting scientific excellence, and its focus on strategic priorities, will ensure that critical mass and capacity is achieved in key areas. Alberta's investments will continue to research funding from industry and federal sources, and will result in a number of unique partnerships focused on research capacity of Alberta's innovation system. This goal reflects the vital importance of developing, attracting a

high quality people who possess the scientific, technical and entrepreneurial skills needed in an innovative, knowl economy.

Key outcomes associated with this goal:

- A skilled workforce to support research and innovation.
- Internationally recognized research capabilities in areas of strategic priority for long-term growth.
- A supportive environment that encourages innovation, collaboration and networks.

Strategies

2.1 Provide support to recruit and retain key scientific personnel at Alberta public research institutions.

2.2 Provide strategically targeted support for Alberta publicly-funded research infrastructure.

2.3 Make investments that strengthen Alberta's science capacity to support energy, ICT and life sciences, and oth strategic priority. Examples include nanotechnology, genomics/proteomics, bioinformatics and wireless communic technologies.

2.4 Encourage greater investment in Alberta's research and innovation priorities from industry and federal governi

2.5 Work with other government departments, agencies and public institutions to coordinate research and innovat investments, policies and programs.

2.6 Work with the Alberta Heritage Foundation for Medical Research and the Alberta Ingenuity Fund to align effor provincial priorities, with an increased focus on technology commercialization.

2.7 Promote science and technology awareness within Alberta, including encouraging youth to enter careers in sc technology.

2.8 Promote Alberta's strengths in science and technology, both nationally and internationally.

2.9 Communicate to Education and Advanced Education needs relative to the skills required to support innovatio

Performance Measures	Last Actual (2003-04)	Target 2005-06	Target 2006-07	Target 2007-08
2.a Total sponsored research revenue attracted by Alberta universities (\$ millions)	\$583	\$606	\$630	\$663
2.b Total sponsored applied research revenue attracted by Alberta technical institutes and colleges (\$ millions)	\$1.2	\$1.2	\$1.2	\$1.2

Sources:

2.a Innovation and Science, Research Funding at Alberta Universities 2003-2004 Report.

2.b Innovation and Science.

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GOAL 3: Accelerate innovation in the energy sector

What it means

Energy, directly or indirectly, accounts for about half of the Alberta economy and contributes to more than 25 per revenues of the Government of Alberta. The Alberta Energy Research Institute developed the *Alberta Energy Inn* to strategically secure Alberta's position for the future – to create value from our energy resources, improve envirc performance and build a strong economy. To support technology advances in the area of energy, the Institute has

together interested public and private sector partners from across Canada to collaborate in creating and implementing innovation programs through the Energy Innovation Network (EnergyINet).

Key outcomes associated with this goal:

- Projects initiated through EnergyINet.
- An integrated energy economy in Alberta.
- Internationally recognized research capabilities in areas of strategic importance.
- Stakeholders share a common vision for achieving a competitive energy supply with a minimal environmental impact.
- Increased collaboration among energy research performers and energy producers.
- Increased joint investments in energy research by industry, the federal government and Alberta.

Strategies

3.1 Collaborate with stakeholders to support six energy innovation programs in: oil sands upgrading, clean carbor management, improved recovery, alternate and renewable energy, and water management, using EnergyINet as vehicle through which investments are made in Alberta priorities.

3.2 Lead the development of crosscutting initiatives in competitive intelligence, technology transfer/commercialization building and strategic communications as part of EnergyINet.

3.3 Enhance the capacity for energy innovation through strong university, provincial and federal research organizations and high quality research teams that support the six strategic priority areas.

3.4 Ensure alignment with industry and other government ministries to promote technology advances in energy and in the development and implementation of energy innovation programs with other providers within Canada, the US and elsewhere.

3.5 Support Energy's Innovative Technology Royalty Program and field pilot projects that advance the deployment of new technologies.

3.6 Support the development of Energy's strategic plan, *Alberta's Energy Hub*.

3.7 Promote industry collaboration and maintain close working relationships with associations such as the Petroleum Alliance of Canada, the Canadian Clean Power Coalition, the Canadian Oil Sands Network for Research and Development, the Canadian Energy Research Institute, and Climate Change Central.

Performance Measures	Last Actual (2003-04)	Target 2005-06	Target 2006-07	Target 2007-08
3.a Ratio of private and other public investments in energy research to Government of Alberta (GOA) investments in energy research	3.94	2.50	2.50	2.50
3.b Non-GOA Investment in energy research:				
• Non-GOA investment through existing programs (\$ millions)	\$52.7	\$27.0	\$23.2	\$13.6
• Non-GOA investment through EnergyNet (\$ millions)	\$0	\$8.2	\$16.9	\$26.0
	\$52.7	\$35.2	\$40.1	\$39.6
GOA Investment in energy research:				
• GOA investment through existing programs (\$ millions)	\$15.1	\$13.8	\$11.9	\$7.0
• GOA investment through EnergyNet (\$ millions)	\$0	\$4.2	\$8.7	\$13.3
	\$15.1	\$18.0	\$20.6	\$20.3
3.c Growth of EnergyNet				
• Number of participating organizations	0	10	15	20

Note:
Different time periods are used to determine the values in "3.a" and "3.b". These values are not directly comparable. The Last Actuals for these measures are higher than the targets as a result of two large dollar value, high-leverage projects that end prior to 2005-06 and one large project that is winding down.

Sources:

3.a Innovation and Science, Strategic Investment Research Database.

3.b Innovation and Science, Alberta Energy Research Institute.

3.c Innovation and Science, Alberta Energy Research Institute.

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GOAL 4: Accelerate innovation in the information and communications technology sector

What it means

Information and communications technology (ICT) is vital to Alberta's economic future and will play a key role in its sectors of the Alberta economy. Through iCORE Inc., the Ministry is attracting and growing a critical mass of outstanding researchers and graduate students in computer science, electrical and computer engineering, and other ICT related fields.

Key outcomes associated with this goal:

- A skilled workforce to support ICT research and innovation and other sectors of the Alberta economy.
- Internationally recognized research capabilities in areas of strategic importance.
- An environment that supports and encourages innovation in ICT research, through collaborative research, and technology commercialization.

Strategies

4.1 Complete the work required to establish an ICT institute to guide research and innovation.

4.2 Recruit and fund the best researchers in areas where Alberta can be a global leader, including: broadband network; high performance computing; new computational models to support emerging technologies (genomics, bioinformatics, etc.); and software and multimedia.

4.3 Encourage industry to fund research chairs at Alberta universities.

4.4 Collaborate with government partners to increase the number of Alberta graduates from ICT related fields of s

4.5 Invest strategically in ICT research and development infrastructure – such as wireless test beds, research net and nano fabrication facilities – that makes Alberta globally competitive.

4.6 Increase collaboration between public research institutions, industry and academia in Alberta and other jurisd strategic investments that enhance Alberta's ICT research and development capability.

Performance Measures	Last Actual (2003-04)	Target 2005-06	Target 2006-07	Target 2007-08
4.a iCORE Awards (Totals include "new")				
New Research Chairs, Industry Chairs and Professors	4	4	4	4
Total Active Research Chairs, Industry Chairs and Professors	17	23	27	29
New Graduate Student Scholarships	75	80	80	80
Total Active Graduate Student Scholarships	213	200	200	200
4.b Ratio of private and other public investments in ICT research to GOA investments in ICT research	1.95	1.95	1.95	1.95
4.c Investment in ICT research (\$millions)				
• Non-GOA investment in ICT research (\$millions)	\$60.3	\$47.0	\$46.5	\$46.5
• GOA investment in ICT research (\$ millions)	\$25.4	\$24.1	\$23.9	\$23.9

Note:

Different time periods are used to determine the values in "4.b" and "4.c". These values are not directly comparable. Last Actuals for these measures are higher than the targets as a result of two high-value projects that end prior to 2005-06 and higher than expected leverage by iCORE of federal CFI and CRC programs.

Sources:

4.a iCORE Inc.

4.c iCORE Inc. and Strategic Investment Research Database.

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GOAL 5: Accelerate innovation in the life sciences sector

What it means

Life sciences is the growing understanding of living things and the use of that understanding to produce benefits for Alberta is focusing on new initiatives in four priority areas of bioproducts, health innovation, platform technologies, production and environmental technologies that will support and augment the agriculture, energy, environment, food sectors. By building excellence in life sciences research and development, Alberta will increase its economic return, renewable economy, improve quality of life, and create a more sustainable future for Albertans. *Growing Our Future: Life Sciences Strategy for Alberta* is government's plan to grow Alberta's life sciences sector and is reflected in the plan under this goal.

Key outcomes associated with this goal:

- A comprehensive approach to link and coordinate agriculture, environment, forestry, health and water research.
- A skilled workforce to support life sciences research.
- Internationally recognized research capabilities in areas of strategic importance.
- Research that contributes to the sustainable growth of the agriculture and food sector.
- Research that increases the global competitiveness and sustainability of Alberta's forestry sector.
- Life sciences development that harmonizes with Alberta values and goals.
- An environment that encourages innovation and collaborative networks in life sciences research, including research networks.

Strategies

5.1 Complete the work required to establish a Life Sciences Institute to guide life sciences research and innovation in the directions recommended by Alberta Science and Research Authority.

5.2 Develop a water research strategy in support of *Water for Life: Alberta's Strategy for Sustainability* to consolidate and align current investments, and guide future investments in water research.

5.3 Implement a life sciences strategic business plan to lead and align research and innovation priorities and involve industry and research partners, including investigation of cross-disciplinary opportunities in the areas of agricultural health research, especially in the focus areas of: bioproducts; health innovation; sustainable production; environmental technologies; and platform technologies.

5.4 Work with partners to develop mechanisms to attract, train and retain high quality people in areas of opportunity in sciences (e.g. bioproducts).

5.5 Strengthen coordination of efforts within Ministry research institutes and programs to support the Alberta priority initiative.

5.6 Work with partners to significantly increase investments (private and public) in high quality agriculture, forestry, technology research and technology development through new programs and strategic research networks.

5.7 Continue to lead the implementation of the Alberta Agriculture Research and Innovation Strategic Framework Alberta Agricultural Research Institute, in partnership with the private sector, agricultural research and development funders and stakeholders, and in alignment with the Life Sciences Strategy.

5.8 Support implementation of the Institute for Food and Agricultural Sciences Alberta, through participation and in specific activities of relevance to: the Alberta Agricultural Research Institute; Alberta Agriculture, Food and Rural Development and the Life Sciences Strategy.

5.9 Continue to work with industry and other research partners through the Alberta Forestry Research Institute, to long-term strategic plan aligned with the Life Sciences Strategy.

5.10 Develop a bioenergy strategy and implement demonstration projects for Alberta that support rural development partnerships with the Research Institutes and a cross-government effort involving several ministries.

Performance Measures	Last Actual (2003-04)	Target 2005-06	Target 2006-07	Target 2007-08
5.a Ratio of private and other public investments in life sciences research to GOA investments in life sciences research	2.27	2.27	2.27	2.27
5.b Investment in life sciences research (\$Millions)				
• Non-GOA Investment in life sciences research (\$Millions)	\$85.9	\$51.3	\$50.6	\$50.6
• GOA investment in life sciences research (\$Millions)	\$30.5	\$22.6	\$22.3	\$22.3

Note:

Different time periods are used to determine the values in "5.a" and "5.b". These values are not directly comparable. Last Actuals for these measures are higher than targets as a result of 5 large, high-leverage projects that end prior to 2005-06.

Source:

Innovation and Science, Strategic Investment Research Database.

CORPORATE ACTIVITIES

The following corporate divisions within the Ministry of Innovation and Science ensure resources are used effectively to support Ministry goals and strategies:

- Policy and Strategic Planning
- Department Chief Information Officer
- Finance Division
- Communications
- Human Resource Services

TRACKING EMPLOYEE SATISFACTION/UNDERSTANDING OF CONTRIBUTION

The Ministry will continue to track employee satisfaction and understanding of their contribution to the Ministry. Targets have been established for several measures, as indicated in the following table:

	Last Actual (2004-05)	Target 2005-06	Target 2006-07	Target 2007-08
Percentage of employees who know and understand how their work contributes to the achievement of their department business plan	79%	93%	100%	100%
Percentage of employees who are very/somewhat satisfied with their employment at Innovation and Science/Government of Alberta	88%	92%	95%	95%
Percentage of employees who agree that Innovation and Science provides the support they need to acquire or develop knowledge and skills in their current job	80%	82%	85%	85%
Percentage of employees indicating that their organization provides expected outcomes for their work	74%	80%	85%	85%
Percentage of employees indicating that their organization helps them know and understand how well they are performing	79%	82%	85%	85%

Source:

Government of Alberta 2004 Corporate Employee Survey: Results for Innovation and Science Employees. Research Innovations Inc.

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CROSS-MINISTRY IMPACT

Ministry activities support the achievement of objectives and targets related to the following Cross-Ministry Policy: Economic Development and Innovation Initiative; Leading in Learning and Skilled Workforce Initiative; Aboriginal Health Innovation and Wellness Initiative; and Alberta Children and Youth Initiative.

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MINISTRY STATEMENT OF OPERATIONS

(thousands of dollars)

	Comparable 2003-04 Actual	Comparable 2004-05 Budget	Comparable 2004-05 Forecast	2005-06 Estimates	2006-07 Target	2007-08 Target
REVENUE						
Internal Government Transfers	66,797	69,285	69,285	60,238	62,344	62,344
Transfers from Government of Canada	-	-	1,484	2,442	1,089	843
Investment Income	951	840	790	500	500	500
Other Revenue	34,204	35,744	38,099	47,450	54,400	60,139
MINISTRY REVENUE	101,952	105,869	109,658	110,630	118,333	123,826
EXPENSE						
Program						
Innovation Acceleration						
Technology Commercialization Initiatives	2,553	2,115	3,832	3,175	3,175	3,175
Innovation and Service Excellence Program	-	7,000	500	16,172	14,750	-
Emerging Opportunities	-	-	-	6,875	12,911	12,911
Alberta Research Council Inc.						
- Core Research Funding	27,135	27,082	26,812	26,000	26,780	26,780
- Contract Research	31,497	36,075	37,346	48,480	54,180	59,815
Innovation Capacity						
Research Capacity						
Alberta Science and Research Investment Program	36,092	32,005	37,170	22,453	21,914	21,914
Science Awareness	145	1,000	1,000	1,500	1,500	1,500
Energy Sector						
Energy Research Strategy	5,492	8,595	9,037	9,722	11,289	11,043
Climate Change	6,564	6,000	6,000	7,000	8,000	8,000
Life Sciences Sector						
Life Sciences	11,834	11,675	49,798	11,635	11,610	11,610
Information and Communications Technology (ICT) Sector						
ICT Investments	1,500	1,500	1,500	3,300	3,300	3,300
iCORE Inc. (Informatics Circle of Research Excellence)	9,737	10,110	10,110	10,620	10,620	10,620
Operations and Policy Implementation						
Innovation Acceleration	4,772	5,086	5,336	6,027	6,137	5,887
Innovation Capacity	4,382	5,213	5,213	5,342	5,342	5,342
Ministry Support Services	4,411	5,024	5,024	5,146	5,146	5,146
Contributions to the Alberta Heritage Science and Engineering Research Endowment Fund	21,430	-	-	-	-	-
MINISTRY EXPENSE *	167,544	158,480	198,778	183,447	196,654	187,043
Gain (Loss) on Disposal of Capital Assets	(699)	-	(5,800)	-	-	-
NET OPERATING RESULT	(66,291)	(52,611)	(94,920)	(72,817)	(78,321)	(63,217)

* Ministry Expense is equal to the single core business of the Ministry which is Innovation.

 [Back to Top](#)**CONSOLIDATED NET OPERATING RESULT**

(thousands of dollars)

	Comparable 2003-04 Actual	Comparable 2004-05 Budget	Comparable 2004-05 Forecast	2005-06 Estimates	2006-07 Target	2007-08 Target
Ministry Revenue	101,952	105,869	109,658	110,630	118,333	123,826
<i>Inter-ministry consolidation adjustments</i>	(68,220)	(72,451)	(71,498)	(63,094)	(65,786)	(66,429)
Consolidated Revenue	33,732	33,418	38,160	47,536	52,547	57,397
Ministry Program Expense	167,544	158,480	198,778	183,447	196,654	187,043
<i>Inter-ministry consolidation adjustments</i>	(22,853)	(3,166)	(2,213)	(2,856)	(3,442)	(4,085)
Consolidated Program Expense	144,691	155,314	196,565	180,591	193,212	182,958
Gain (Loss) on Disposal of Capital Assets	(699)	-	(5,800)	-	-	-
CONSOLIDATED NET OPERATING RESULT	(111,658)	(121,896)	(164,205)	(133,055)	(140,665)	(125,561)

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Alberta Innovation and Science

*Alberta Prospers Through Innovation
2006 - 2009 Business Plan*

This document is available on the Internet at www.innovation.gov.ab.ca under “publications.”

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Advanced Education

BUSINESS PLAN 2006-09

ACCOUNTABILITY STATEMENT

The business plan for the three years commencing April 1, 2006 was prepared under my direction in accordance with the *Government Accountability Act* and the government's accounting policies. All of the government's policy decisions as of February 23, 2006 with material economic or fiscal implications of which I am aware have been considered in preparing the business plan.

The Ministry's priorities outlined in the business plan were developed in the context of the government's business and fiscal plans. I am committed to achieving the planned results laid out in this business plan.

[Original Signed]

David Hancock, *Minister of Advanced Education*
February 28, 2006

THE MINISTRY

Alberta's advanced learning system comprises public board-governed institutions, the apprenticeship and industry training system, community consortia, private providers and community-based organizations. In collaboration with the advanced learning system, industry, communities, government agencies and non-governmental organizations, Advanced Education strives to create accessible, affordable and quality learning opportunities that are responsive to the ongoing learning needs of Albertans. The Ministry's 2006-09 Business Plan identifies how it plans to work over the next three years to enhance advanced education and learning opportunities for all Albertans.

The Ministry of Advanced Education consists of the Department of Advanced Education and the Access to the Future Fund. The Department of Advanced Education currently includes two core program divisions – Adult Learning and Apprenticeship and Industry Training – and a supporting division, Strategic Corporate Services. The core divisions provide learning

Innovation and Science

BUSINESS PLAN 2006-09

ACCOUNTABILITY STATEMENT

The business plan for the three years commencing April 1, 2006 was prepared under my direction in accordance with the *Government Accountability Act* and the government's accounting policies. All of the government's policy decisions as of February 23, 2006 with material economic or fiscal implications of which I am aware have been considered in preparing the business plan.

The Ministry's priorities outlined in the business plan were developed in the context of the government's business and fiscal plans. I am committed to achieving the planned results laid out in this business plan.



Victor Doerksen, *Minister of Innovation and Science*
March 1, 2006

THE MINISTRY

The Ministry includes:

- Department of Innovation and Science
- Alberta Research Council Inc.
- iCORE Inc. (Alberta Informatics Circle of Research Excellence)

The Minister of Innovation and Science is responsible for the Alberta Science and Research Authority and its associated institutes including: Alberta Agricultural Research Institute; Alberta Energy Research Institute; Alberta Life Sciences Institute; Alberta Information and Communications Technology Institute, and Alberta Forestry Research Institute. The Minister of Innovation and Science also has responsibility for legislation pertaining to the Alberta Heritage Foundation for Medical Research and the Alberta Heritage Foundation for Science and Engineering Research (operating under the trade name "Alberta Ingenuity Fund").

VISION

Alberta prospers through innovation.

MISSION

To enhance the contribution of innovation, science, research and development and its application to the sustainable prosperity and quality of life of all Albertans.

LINK TO THE GOVERNMENT OF ALBERTA STRATEGIC BUSINESS PLAN

This business plan is aligned with and directly supports the achievement of Goal One of the 2006-09 Government of Alberta 3-Year Business Plan:

Goal 1: Alberta will have a diversified and prosperous economy.

Ministry activities aim at growing the knowledge-based economy in Alberta and adding value to important resource-based industries like energy, agriculture and forestry, to ensure Alberta's long-term prosperity.

Further activities outlined in this business plan support the achievement of goals pertaining to learning, global competitiveness, health, and the environment in the 2006-09 Government of Alberta Strategic Business Plan.

Innovation and Science activities support the first strategic opportunity identified in *Today's Opportunities, Tomorrow's Promise: A Strategic Plan for the Government of Alberta*.

Strategic Opportunity 1: Unleashing Innovation

This business plan reflects strategies to strengthen Alberta's capacity for innovation, with an emphasis on: building the capability and capacity of Alberta's research system; building excellence in three strategic priority areas (energy, information and communications technologies (ICT) and life sciences); developing, attracting and retaining highly qualified professionals; encouraging technology commercialization; and fostering the growth of knowledge-based industries.

The Ministry also supports other opportunities such as Leading in Learning and Competing in a Global Marketplace through its activities.

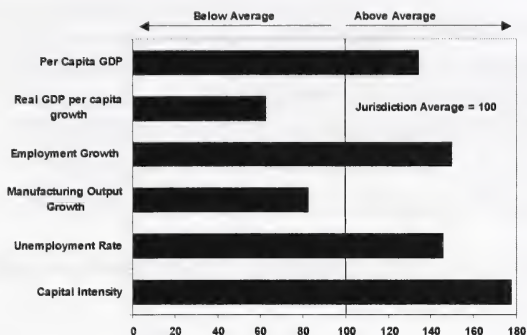
SIGNIFICANT OPPORTUNITIES AND CHALLENGES

Opportunities:

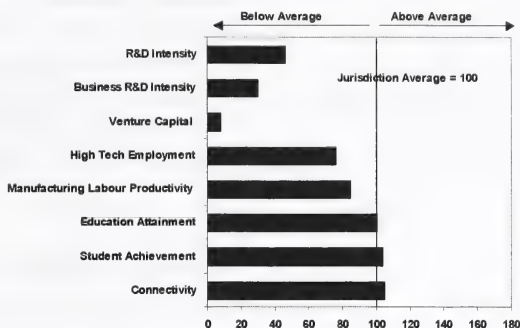
- The Government of Alberta has put a clear priority on developing value-added sectors of the economy. Ministry activities are aligned with government's value-added strategy, Securing Tomorrow's Prosperity.
- Making investments in the strategic priority areas of energy, information and communications technologies and life sciences that will build capacity for long-term prosperity.
- Responding to provincial initiatives reflected in the government's strategies: Water for Life: Alberta's Strategy for Sustainability, the Climate Change Strategy and the Rural Development Strategy.
- Building on Alberta's strengths in strategic priority areas. Alberta is well positioned to leverage federal investment in support of provincial priorities.
- Building on the capability of post-secondary institutions to develop, attract and retain highly skilled people needed to support the growth of a knowledge-based economy in Alberta.
- Encouraging greater industry investment in research and innovation. Industry plays a critical role in the innovation system, taking new ideas and turning them into new products, processes and services in the global marketplace.
- Ensuring that the appropriate infrastructure is in place to support applied research and successful commercialization of new products and services.
- Bringing together the right mix of management mentorship and access to capital to encourage and sustain new entrepreneurial ventures.

Alberta is a player in an intensely competitive global economy. Improving Alberta's innovation capacity is critical to ensuring the province's long-term economic competitiveness and quality of life.

Alberta's Performance: Economic Indicators



Alberta's Performance: Innovation Indicators



Source: Benchmarking Alberta in the Knowledge-Based Economy (Alberta Economic Development), December 2005

Based on comparison with top performers in Canada, the U.S.A., and Europe. Comparison jurisdictions were chosen on the basis of strong relative economic and innovation performance, and size and structural similarities with Alberta.

Challenges:

- Alberta needs to grow the number of knowledge-based companies; increase the value-added output from traditional resource-based industries; increase its ability to attract and grow research-intensive enterprises; and increase the application of science and technology to find solutions to environmental, health and unique industrial challenges.
- Alberta needs to identify key niches where it already has a comparative advantage within its broad areas of strategic priority, thus necessitating building a foresight capability and a better appreciation of Alberta's strengths within a global context.
- Alberta must also address the challenges relating to a paucity of business and marketing skills to finance and commercialize new technologies; access to early stage capital; the alignment of programs to build on sustainable strengths; and to nurture "centres of innovation excellence" that bridge research institutions and industry.

Only through addressing these challenges and embracing the opportunities will Alberta truly unleash its innovation potential and enhance Albertans' quality of life.

STRATEGIC PRIORITIES 2006-09

Through the Ministry's review of environmental factors, the strategic priorities described below have been identified. These are in addition to the important ongoing core activities of the Ministry.

Unleashing Innovation

The Ministry is championing and leading efforts to Unleashing Innovation – one of the strategic opportunities of the Government of Alberta's 20 Year Strategic Plan. The Alberta Science and Research Authority (ASRA) will play a critical advisory role in identifying science and technology opportunities and key policies for innovation.

The Ministry supports the top-up of the Alberta Ingenuity Fund to \$1 billion which is needed to support strategic priorities.

The strategies cited below will enable Innovation and Science to achieve its goals and contribute to the implementation of the overall strategies of the Government of Alberta. All goals mentioned below link to Goal 1 "Alberta will have a diversified and prosperous economy" in the *Government of Alberta 3-Year Business Plan*.

- | | |
|------------------------|--|
| Linkage: Goal 1 | <ul style="list-style-type: none"> • Support the continuing implementation of the government's value-added strategy, Securing Tomorrow's Prosperity. • Implement the strategy, Accelerating Innovation in Alberta. • Position the Alberta Research Council (ARC) as a key enabler in supporting the pre-commercial and commercial development needs of Alberta business. • Encourage innovation within the Government of Alberta by administering competitions under the Innovation Program. |
| Goal 2 | <ul style="list-style-type: none"> • Support post-secondary institutions in building research capacity in areas of strategic priorities. • Work with partners in the National Institute of Nanotechnology to make Alberta one of the world's foremost locations for nanotechnology research and innovation. |
| Goal 3 | <ul style="list-style-type: none"> • Implement the Alberta Energy Innovation Strategy. • Collaborate nationally with stakeholders, using EnergyINet as a key vehicle through which energy research and innovation investments in six strategic priority areas are pursued. |
| Goal 4 | <ul style="list-style-type: none"> • Constitute the Alberta ICT Institute and commence the update of the ICT Strategy. • Continue to attract and grow a critical mass of outstanding researchers and graduate students through iCORE Inc. • Facilitate growth of ICT industrial sectors. |
| Goal 5 | <ul style="list-style-type: none"> • Develop a coordinated water research in support of <i>Water for Life: Alberta's Strategy for Sustainability</i>. • Establish a strong genomics research and innovation program in Alberta. • Facilitate growth of life sciences industrial sectors |

CORE BUSINESSES, GOALS, STRATEGIES & PERFORMANCE MEASURES

Core Business: Innovation

The government's Strategic Plan, *Today's Opportunities, Tomorrow's Promise*, has identified Unleashing Innovation as a strategic opportunity on which government efforts will be focused over the next 20 years. Innovation and Science is leading and championing Government of Alberta efforts to unleash innovation. Ministry activities are grouped under a single core business – Innovation.

Ministry efforts are focused on:

- Accelerating innovation in Alberta, with emphasis on increasing commercialization of research and industry growth;
- Encouraging and supporting innovation within the Government of Alberta;
- Building the capability and capacity of the research system, and
- Building research excellence in the strategic priority areas of energy, ICT and life sciences.

During 2006-09, Innovation and Science will lead a coordinated effort with other ministries to implement the approved strategy, Accelerating Innovation in Alberta. Endorsement of the recommendations reflects a commitment by government to strategically invest in the knowledge-based economy by adopting a policy target to move toward investing up to 5% of the Government of Alberta's annual budget in support of its innovation agenda, over the next ten years.

These efforts will position Alberta to capitalize on the opportunities in the knowledge economy.

The Ministry is building a foundation for the long-term prosperity of the province by building excellence in the strategic priority areas. Over the last several years, the Ministry collaborated with partners to develop a number of strategies that serve to strengthen Alberta's innovation capacity:

- Accelerating Innovation in Alberta
- The Alberta Energy Innovation Strategy
- Growing our Future: An Integrated Life Sciences Strategy for Alberta
 - The Agriculture Research and Innovation Strategic Framework (developed by the Alberta Agricultural Research Institute in partnership with Agriculture, Food and Rural Development)
 - The Forestry Research Strategic Plan (developed by the Alberta Forestry Research Institute)
- Information and Communications Technology: A Strategy for Alberta

The five goals contained in this business plan reflect the implementation of these strategies.

GOAL ONE

1

Implement innovation

What it means Investments in research result in innovative ideas, products and processes that, if commercialized successfully for the global marketplace, have the potential to yield significant economic and social benefits for the province. The Ministry is working to create an environment where great ideas are more likely to be developed and brought to market in Alberta, with a focus on: supporting applied research and development; strengthening the technology commercialization system; encouraging business growth in priority sectors, and encouraging innovation within the Government of Alberta.

Key outcomes associated with this goal:

- Increased application and commercialization of energy, ICT, and life sciences research in Alberta.
- Growth in Alberta's ICT and life sciences sectors.
- Increased implementation of innovative initiatives to enhance Government of Alberta service delivery and to facilitate the application of new knowledge in Alberta.

Strategies

- 1.1 Work with partners to support the implementation of the strategy, Accelerating Innovation in Alberta.
 - Work with partners to ensure there are adequate bridging/linking mechanisms to help industry work with the research community to effectively apply knowledge resulting from research activities.
 - Work collaboratively with Economic Development and other partners to facilitate access to sources of appropriate management assistance/mentoring and entrepreneurial coaching skills to technology start-up and small businesses.
 - Provide and support the establishment of facilities, equipment, test beds and expertise to help develop and commercialize new products, processes and services, through investment in organizations, such as ARC, TRILabs and the Banff New Media Institute.
 - Position the Alberta Research Council as a key enabler in supporting the pre-commercial and commercial development needs of Alberta business; providing facilities and expertise to support product testing and development in strategic priority areas; assisting and supporting firms to commercialize new technology in pursuit of viable global markets, and improving investment readiness of smaller emerging and start-up companies.

- 1.2 Work with Finance and Economic Development to enhance the competitiveness of Alberta's business environment with respect to encouraging technology commercialization and adoption.
- 1.3 Work with ministries, industry and research institutions to identify and market business opportunities, attract and encourage seed venture funding from industrial partners, and promote the Alberta Advantage in priority areas.
- 1.4 Work with partners to encourage expatriates and skilled workers to locate in Alberta.
- 1.5 Reinforce the need for innovation within the Government of Alberta and provide essential funding support for projects that meet the Innovation Program requirements, criteria and expectations.

Performance Measures	Last Actual (year)	Target 2006-07	Target 2007-08	Target 2008-09
1.a Percentage of Government of Alberta Expense used to support innovation	1.42% (2004-05)	Increasing up to 5%, as affordable, by 2015.		
1.b Number of Albertans employed in knowledge-intensive (high-tech) companies	111,300 (2004)	117,000	120,200	123,803
1.c Albertans employed in knowledge-intensive (high-tech) companies as a percentage of Albertans employed in all companies	6.3% (2004)	6.4%	6.5%	6.6%
1.d Percentage of Canadian venture capital invested in strategic priority areas	1.5% (2004)	3.1%	3.2%	3.3%
1.e Alberta Business Expenditures on Research and Development (\$million)	782 (2003)	818	854	890

Sources:

- 1.a Innovation and Science Annual Innovation Review and Government of Alberta Annual Reports.
- 1.b Economic Development, Alberta Business Monitor.
- 1.c Economic Development, Alberta Business Monitor.
- 1.d Thomson Macdonald, VC Reporter
- 1.e Statistics Canada, Service Bulletin Science Statistics.

GOAL TWO



Build research capacity in areas of strategic priority

What it means A critical building block supporting innovation is strong research capability at Alberta universities, colleges and technical institutes. The Government of Alberta's commitment to supporting scientific excellence, and its focus on Alberta's strategic research priorities: energy, information and communication technology and life sciences, will ensure that critical mass and capacity is achieved in key areas. Alberta's investments will continue to attract research funding from industry and federal sources, and will result in a number of unique partnerships focused on building the research capacity of Alberta's innovation system. This goal reflects the vital importance of developing, attracting and retaining high quality people who possess the scientific, technical and entrepreneurial skills needed in an innovative, knowledge-based economy.

Key outcomes associated with this goal:

- A skilled workforce to support research and innovation.
- Internationally recognized research capabilities in areas of strategic priority for long-term growth.
- A supportive environment that encourages innovation, collaboration and networks.

Strategies

- 2.1 Provide support to recruit and retain highly qualified and effective scientific personnel at Alberta public research institutions.
- 2.2 Strengthen Alberta's scientific capacity to support areas of strategic importance through investing in Alberta's publicly-funded research infrastructure. Examples include nanotechnology, genomics/proteomics, bioinformatics and wireless communications technologies.
- 2.3 Encourage greater investment in Alberta's research and innovation priorities from industry and federal government sources.
- 2.4 Coordinate research and innovation-related investments, policies and programs by collaborating with other ministries and public institutions. For example, support Education and Advanced Education in their studies of the needs relative to the skills required to support innovation.
- 2.5 Work with the Alberta Heritage Foundation for Medical Research and the Alberta Ingenuity Fund to align efforts towards provincial priorities, with an increased focus on technology commercialization.
- 2.6 Promote science and technology awareness within Alberta, including encouraging youth to enter careers in science and technology. As a cornerstone, provide ongoing support to the Science Alberta Foundation for the work they accomplish with children, youth, teachers and communities to promote science awareness.
- 2.7 Promote Alberta's strengths in science and technology both nationally and internationally.

Performance Measures	Last Actual (2004-05)	Target 2006-07	Target 2007-08	Target 2008-09
2.a Total sponsored research revenue attracted by Alberta universities (\$million)	650	750	793	836
2.b Total sponsored applied research revenue attracted by Alberta technical institutes and colleges (\$million)	1.2	1.2	1.2	1.2

Sources:

- 2.a Innovation and Science, Research Funding at Alberta Universities 2004-2005 Report.
- 2.b Innovation and Science.

GOAL THREE



Accelerate innovation in the energy sector

What it means

Energy, directly or indirectly, accounts for about half of the Alberta economy and contributes to more than 25 per cent of the revenue of the Government of Alberta. The Alberta Energy Research Institute (AERI) developed the Alberta Energy Innovation Strategy to strategically secure Alberta's position for the future – to create value from our energy resources, improve environmental performance and build a strong economy. As part of the Energy Innovation Strategy, AERI supports other government technology priorities, such as the Alberta's Climate Change Plan (Environment), the Innovative Energy Technology Program (Energy) and Value Added Strategy (Economic Development). To implement the Alberta Energy Innovation Strategy, AERI and its stakeholders have brought together interested public and private sector partners from across Canada to collaborate in supporting advanced energy research and innovation programs through the Energy Innovation Network (EnergyINet).

Key outcomes associated with this goal:

- Projects initiated through EnergyINet.
- Internationally recognized research capabilities in areas of strategic importance.
- Increased collaboration among energy research performers and energy producers.
- Increased joint investments in energy research by industry, the federal government and Alberta.

Strategies

- 3.1 Collaborate nationally with stakeholders using EnergyINet as a key vehicle to pursue energy research and innovation investments in six strategic priority areas, i.e. oil sands upgrading, clean carbon/coal, CO₂ management, improved recovery, alternate and renewable energy, and water management.
- 3.2 Provide applied research and development to support technology commercialization and adoption of technologies.
- 3.3 Lead crosscutting initiatives in competitive intelligence, technology transfer/commercialization and capacity building.
- 3.4 Enhance the capacity for energy innovation through strong university, provincial and federal research organization-based programs and high quality research teams that support the six strategic priority areas.
- 3.5 Ensure alignment with industry and other government ministries to promote technology advances in energy and to collaborate in the development and implementation of energy innovation programs with other providers within Canada, the United States and elsewhere.
- 3.6 Support the Innovative Energy Technology Program and field pilot projects that advance the deployment of new energy technologies.
- 3.7 Promote industry collaboration and maintain close working relationships with associations, such as the Petroleum Technology Alliance of Canada, the Canadian Clean Power Coalition, the Canadian Oil Sands Network for Research and Development, the Canadian Energy Research Institute, Canadian Association of Petroleum Producers and Climate Change Central.

Performance Measures	Last Actual (2004-05)	Target 2006-07	Target 2007-08	Target 2008-09
3.a Ratio of private and other public investments in energy research to Government of Alberta (GOA) investments in energy research	2.37	2.50	2.50	2.50
3.b Investment in energy research (\$million)				
• Non-GOA investment in energy research	34.8	53.8	53.2	53.2
• GOA Investment in energy research	14.2	21.5	21.3	21.3

Sources:

- 3.a Innovation and Science, Strategic Investment Research Database.
- 3.b Innovation and Science, Alberta Energy Research Institute.

Accelerate innovation in the information and communications technology sector

What it means Information and communications technology (ICT) is vital to Alberta's economic future and will play a key role in improving all sectors of the Alberta economy. Through iCORE Inc., the Ministry is attracting and growing a critical mass of outstanding researchers and graduate students in computer science, electrical and computer engineering, and other ICT related disciplines.

Key outcomes associated with this goal:

- A skilled workforce to support ICT research and innovation and other sectors of the Alberta economy.
- Internationally recognized research capabilities and business competencies in areas of strategic importance.
- An environment that supports and encourages innovation in ICT research, through collaborative research, development and technology commercialization.
- Facilitate the growth of ICT industrial sectors.

Strategies

- 4.1 Update the ICT Strategy for Alberta.
- 4.2 Lead and guide ICT research and innovation to grow the ICT industry.
- 4.3 Build clusters of internationally recognized research teams in areas of ICT in which Alberta companies are able to be global leaders, for example: networks and wireless, artificial intelligence and machine learning, computational and integrative science (e.g., systems biology), new computational models such as nanodevices and quantum computing.
- 4.4 Work with industry to encourage and grow their support of ICT research at Alberta universities.
- 4.5 Collaborate with government partners such as Alberta Ingenuity, Advanced Education and the universities to increase the number of Alberta advanced graduates from ICT related fields of study.
- 4.6 Increase and nurture collaboration between public research institutions, industry, the investment community and academia in Alberta and other jurisdictions.

Performance Measures	Last Actual (2004-05)	Target 2006-07	Target 2007-08	Target 2008-09
4.a iCORE Awards (Totals include "new")				
• New Research Chairs, Industry Chairs and Professors	4	3.2	3.2	3.2
• Total Active Research Chairs, Industry Chairs and Professors	21	24.2	27.4	24
• New Graduate Student Scholarships	101	80	80	80
• Total Active Graduate Student Scholarships	313	200	200	200
4.b Ratio of private and other public investments in ICT research to GOA investments in ICT research	1.64	1.95	1.95	1.95
4.c Investment in ICT research (\$million)				
• Non-GOA investment in ICT research	44.3	40.7	40.7	40.7
• GOA investment in ICT research	31.9	20.9	20.9	20.9

Sources:

- 4.a iCORE Inc.
- 4.b iCORE Inc. and Strategic Investment Research Database.
- 4.c iCORE Inc. and Strategic Investment Research Database.

What it means Life sciences is the growing understanding of living things and the use of that understanding to produce benefits for Albertans. Growing Our Future: An Integrated Life Sciences Strategy for Alberta is the provincial government's plan to grow Alberta's life sciences sector and is reflected in the strategies under this goal. The newly created Alberta Life Sciences Institute will lead the ongoing implementation of the Life Sciences Strategy. Alberta is focusing on cross-sectoral strategic priority areas: bioproducts, health and nutrition, platform technologies, sustainable resource management, prion science as well as water sustainability and safety. Innovation in these strategic priority areas will support and augment the agriculture, energy, environment, forestry and health sectors. By building excellence in life sciences research and development, Alberta will increase its economic returns, develop a renewable economy, improve quality of life, and create a more sustainable future for Albertans. In alignment with the Life Sciences Strategy, the Alberta Agricultural Research Institute and the Alberta Forestry Research Institute have complementary strategies through which they are implementing sector specific activities in collaboration with industry and other research organizations, such as the Alberta Research Council.

Key outcomes associated with this goal:

- A comprehensive approach to link and coordinate agriculture, environment, forestry, health, water research and innovation.
- A skilled workforce to support new and existing life sciences industries.
- Internationally recognized research and innovation capabilities and competencies in areas of strategic importance.
- Research and innovation that contributes to the sustainable growth of the agriculture and food sector.
- Research and innovation that increases the global competitiveness and sustainability of Alberta's forestry sector.
- Life sciences development that is in accord with Albertan values and goals.
- An environment that encourages innovation and collaborative life sciences networks.
- Facilitate growth of life sciences industrial sectors.

Strategies

- 5.1 Lead and guide life sciences research and innovation to grow the life sciences industry
- 5.2 Consolidate, coordinate and align current investments, and guide future investments in water research through an established water research strategy in support of *Water for Life: Alberta's Strategy for Sustainability*.
- 5.3 Implement a life sciences strategic business plan to lead and align research and innovation priorities and investments with industry and research organizations focusing on development of cross-disciplinary opportunities in agriculture, environment, forestry, and health research in the strategic priority areas of:
 - a) Sustainable Resource Management
 - b) BioProducts
 - c) Health and Nutrition
 - d) Platform Technologies
 - e) Water Sustainability and Safety
 - f) Prion Science
- 5.4 Develop mechanisms to attract, train and retain high quality people in the focus areas identified for Alberta life sciences.

- 5.5 Promote industry collaboration and engage with national and international research and development organizations, encouraging increased investment (private and public) in the identified focus areas of life sciences through the development of networks.
- 5.6 Complete and implement a provincial bioenergy strategy, including demonstration projects that encourage rural development.

Performance Measures	Last Actual (2004-05)	Target 2006-07	Target 2007-08	Target 2008-09
5.a Ratio of private and other public investments in life sciences research to GOA investments in life sciences research	1.71	2.27	2.27	2.27
5.b Investment in life sciences research (\$million)				
• Non-GOA Investment in life sciences research	84.1	64.0	64.0	64.0
• GOA investment in life sciences research	27.0	28.2	28.2	28.2

Source:

Innovation and Science, Strategic Investment Research Database.

CORPORATE ACTIVITIES

TRACKING EMPLOYEE SATISFACTION/UNDERSTANDING OF CONTRIBUTION

The Ministry will continue to track employee satisfaction and understanding of their contribution to the Ministry Business Plan.

Supplemental Information	Last Actual (2005-06)	Target 2006-07	Target 2007-08	Target 2008-09
Percentage of employees who know and understand how their work contributes to the achievement of their department business plan	78%	100%	100%	100%
Percentage of employees who are very/somewhat satisfied with their employment at Innovation and Science/Government of Alberta	82%	95%	95%	95%
Percentage of employees who agree that Innovation and Science provides the support they need to acquire or develop knowledge and skills in their current job	70%	85%	85%	90%
Percentage of employees indicating that their organization provides expected outcomes for their work	67%	85%	85%	90%
Percentage of employees indicating that their organization helps them know and understand how well they are performing	64%	85%	85%	90%

Source:

Government of Alberta 2005 Corporate Employee Survey: Results for Innovation and Science Employees, Research Innovations Inc.

MINISTRY STATEMENT OF OPERATIONS

(thousands of dollars)

	Comparable			2006-07 Estimate	2007-08 Target	2008-09 Target
	2004-05 Actual	2005-06 Budget	2005-06 Forecast			
REVENUE						
Internal Government Transfers	69,285	60,238	60,238	66,957	66,957	66,957
Transfers from Government of Canada	374	1,192	1,537	1,530	838	-
Investment Income	956	500	500	500	500	500
Other Revenue	37,925	48,700	37,867	42,458	42,535	42,487
MINISTRY REVENUE	108,540	110,630	100,142	111,445	110,830	109,944
EXPENSE						
Program						
Ministry Support Services	5,559	6,387	6,191	6,639	6,466	6,471
Innovation Implementation						
Technology Commercialization Initiatives	9,545	11,379	41,379	12,889	12,889	12,889
Innovation and Service Excellence Program	737	16,993	8,672	14,750	-	-
Alberta Research Council Inc.:						
Core Research Funding	27,862	26,000	26,000	28,350	28,350	28,350
Contract Research	36,027	48,480	33,647	40,101	40,101	40,101
Innovation Capacity						
Research Capacity						
Alberta Science and Research Investments Program	36,225	21,935	28,856	22,796	22,789	22,789
Alberta Science and Research Authority	1,042	1,112	1,112	2,209	2,209	2,209
Science Awareness	1,025	1,500	1,500	1,800	1,800	1,800
Energy Research	15,646	18,857	19,202	21,607	21,285	20,447
Life Sciences Research	50,717	15,561	15,561	17,176	16,806	16,806
Information and Communications Technology (ICT) Research						
ICT Institute	1,500	3,300	3,300	3,300	3,300	3,300
iCORE Inc. (Informatics Circle of Research Excellence)	10,200	11,420	11,420	11,438	11,438	11,438
Valuation Adjustment	99	-	-	-	-	-
MINISTRY EXPENSE *	196,184	182,924	196,840	183,055	167,433	166,600
Gain (Loss) on Disposal and Write Down of Capital Assets	(4,496)	-	132	-	-	-
NET OPERATING RESULT	(92,140)	(72,294)	(96,566)	(71,610)	(56,603)	(56,656)

* Ministry Expense is equal to the single core business of the Ministry which is Innovation.

CONSOLIDATED NET OPERATING RESULT

(thousands of dollars)

	Comparable			2006-07 Estimate	2007-08 Target	2008-09 Target
	2004-05 Actual	2005-06 Budget	2005-06 Forecast			
Ministry Revenue	108,540	110,630	100,142	111,445	110,830	109,944
Inter-ministry consolidation adjustments	(70,636)	(63,094)	(62,277)	(68,957)	(68,957)	(68,957)
Consolidated Revenue	37,904	47,536	37,865	42,488	41,873	40,987
Ministry Expense	196,184	182,924	196,840	183,055	167,433	166,600
Inter-ministry consolidation adjustments	(1,351)	(2,856)	(2,039)	(2,000)	(2,000)	(2,000)
Consolidated Expense	194,833	180,068	194,801	181,055	165,433	164,600
Gain (Loss) on Disposal and Write Down of Capital Assets	(4,496)	-	132	-	-	-
CONSOLIDATED NET OPERATING RESULT	(161,425)	(132,532)	(156,804)	(138,567)	(123,560)	(123,613)

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Alberta Innovation and Science

2004 - 2007 Business Plan

This document is available on the Internet at www.innsci.gov.ab.ca, under “publications.”

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Innovation and Science

BUSINESS PLAN 2004-07

ACCOUNTABILITY STATEMENT

The Business Plan for the three years commencing April 1, 2004 was prepared under my direction in accordance with the *Government Accountability Act* and the government's accounting policies. All of the government's policy decisions as of February 27, 2004 with material economic or fiscal implications of which I am aware have been considered in preparing the Business Plan.

The Ministry's priorities outlined in the Business Plan were developed in the context of the government's business and fiscal plans. I am committed to achieving the planned results laid out in this Business Plan.



Victor Doerksen, *Minister of Innovation and Science*
March 5, 2004

THE MINISTRY

The Ministry includes:

- Department of Innovation and Science
- Office of the Corporate Chief Information Officer
- Alberta Science and Research Authority (ASRA) and its associated agencies, including Alberta Agricultural Research Institute (AARI); Alberta Energy Research Institute (AERI); Alberta Forestry Research Institute (AFRI); Alberta Research Council Inc. (ARC); and iCORE Inc. (Alberta Informatics Circle of Research Excellence)

The Minister of Innovation and Science is responsible for legislation pertaining to the Alberta Heritage Foundation for Medical Research and the Alberta Heritage Foundation for Science and Engineering Research (operating under the trade name "Alberta Ingenuity Fund").

LINK TO THE GOVERNMENT BUSINESS PLAN

Innovation and Science activities support the achievement of the following Government of Alberta goals:

Goal 1: Albertans will be healthy.

The Ministry provides support for health related research through investments in basic research infrastructure. Human health (including the safety of the food supply) is an important component of *Growing Our Future: An Integrated Life Sciences Strategy for Alberta*.

Goal 2: Albertans will be well prepared for lifelong learning and work.

Various ministry programs support the training of graduate students who will become tomorrow's researchers and important participants in a highly qualified workforce needed to support innovation and create opportunities.

Goal 7: Alberta will have a prosperous economy.

Ministry activities aimed at growing the knowledge-based economy in Alberta and adding value to important resource-based industries like energy, agriculture and forestry, ensure Alberta's long term prosperity. The Alberta SuperNet infrastructure increases opportunities to attract investment and skilled workers to the province, at the same time, enabling rural communities and businesses to connect to the world through local service providers.

Goal 8: Alberta will have a financially stable, open and accountable government and a strong intergovernmental position in Canada.

Through the Corporate Chief Information Officer, the Ministry leads the implementation of the e-Government Strategy and the Corporate Information and Communications Technology Strategy.

Goal 10: The high quality of Alberta's environment will be sustained.

The ministry supports research activities aimed at improving Alberta's environment including water research and climate change.

Goal 12: Alberta will have effective and sustainable government-owned and supported infrastructure.

The Ministry is leading the construction of the Alberta SuperNet, an initiative to build a broadband network which includes 4,700 connections to libraries, schools, hospitals and provincial government offices in 422 communities province-wide in 2004.

VISION

Alberta prospers through the application of science and research and the innovative use of technology

MISSIONS

1. To enhance the contribution of science, research, development and its commercialization for the sustainable prosperity and quality of life of all Albertans.

CORE BUSINESSES

Core Business 1: Research and Innovation

- Goal 1 - In collaboration with universities and other research institutions, build the capability and capacity of Alberta's research system to achieve critical mass in areas of strategic priority.
- Goal 2 - Build the capacity and capability needed to support an innovative and globally competitive energy sector.
- Goal 3 - Build the capacity and capability needed to support an innovative and globally competitive information and communications technology sector.
- Goal 4 - Build the capacity and capability needed to support an innovative and globally competitive life sciences sector.
- Goal 5 - Build the capacity and capability needed to support an innovative and globally competitive economy in Alberta.

MISSIONS (continued)

2. To provide strategic leadership and direction in the innovative and cost-effective use of information and communications technology to improve the efficiency of government program delivery and the internal administration of government.

CORE BUSINESSES (continued)

Core Business 2: Corporate Information and Communications Technology

- Goal 6 - An integrated corporate information and communications technology (ICT) strategy based on common cross government standards, management practices and frameworks.
- Goal 7 - An integrated and shared information and communications technology infrastructure.
- Goal 8 - To support and improve the delivery of programs and services to Albertans and support improvements in the internal administration of government using ICT as an enabler.

SIGNIFICANT OPPORTUNITIES AND CHALLENGES

1. Research and Innovation

- **Opportunity:** The Government of Alberta has put a clear priority on developing value-added sectors of the economy. Our activities are aligned with government's value-added strategy, *Securing Tomorrow's Prosperity*.
- **Opportunity:** Addressing research priorities which respond to emerging provincial needs while making investments which will build capacity for long-term prosperity (e.g. energy, ICT and life sciences) through optimizing returns from global market opportunities.
- **Opportunity:** Building on our strengths in priority areas. We are well positioned to leverage federal investment in support of our priorities.
- **Opportunity:** Build on the capability of post-secondary institutions to develop, attract and retain highly skilled people needed to support the growth of a knowledge-based economy in Alberta.
- **Opportunity:** Encouraging greater industry investment in research and development. Industry plays a critical role in the innovation system, taking new ideas and turning them into new products, processes and services in the global marketplace.
- **Opportunity:** Ensuring that the right infrastructure is in place to support applied research and successful commercialization of new products and services.
- **Opportunity:** Bringing together the right mix of management mentorship and access to capital to encourage and sustain new entrepreneurial ventures.

2. Corporate Information and Communications Technology

- **Opportunity:** The Government of Alberta has identified development of a common, shared infrastructure and common, shared business applications as clear priorities.
- **Opportunity:** To meet increasing public expectations for electronic access to government and increasing public concerns for security and privacy in electronic transactions.
- **Opportunity:** To create a secure, scalable ICT infrastructure that meets the needs of government.
- **Opportunity:** Keeping pace with technological changes, optimize the ICT environment through standardization, rationalization and consolidation of ICT resources across government.
- **Opportunity:** Continuing to explore collaborative opportunities with ministries on corporate initiatives.

STRATEGIC PRIORITIES 2004-07

Through the Ministry's review of external and internal challenges, the strategic priorities described below have been identified. These are in addition to the important, ongoing core activities of the Ministry. The strategic priorities listed under Research and Innovation are consistent with the recommendations made by an International Expert Review Panel appointed to assess the operations of the Alberta Science and Research Authority.

1. Research and Innovation

- Linkage: Goal 1**
 - Continue to build the capability and capacity of Alberta's research system by investing in excellent people, investing in research infrastructure and investing in strategically aligned initiatives.
- Linkage: Goal 2**
 - Continue to implement the Alberta Energy Innovation Strategy with a focus on priority areas of oil sands upgrading, clean carbon technologies and CO₂ management.
- Linkage: Goal 3**
 - Work towards the creation of an Information and Communications Technology Institute to guide ICT research and innovation.
 - Continue to support strategic research investments in ICT.
- Linkage: Goal 4**
 - Work towards the creation of a Life Sciences Institute to link and coordinate agriculture, environment, forestry, health, bioenergy and water research.
 - Implement the Life Sciences Strategy. This includes support of collaborative initiatives between the Alberta Agricultural Research Institute and the Alberta Forestry Research Institute, as well as support for provincial research priorities including those identified in the Water for Life Strategy and the Agri-food Growth Strategy.
- Linkage: Goal 5**
 - Support the implementation of the cross-ministry Economic Development Strategy.
 - Implement a broad technology commercialization and adoption strategy for Alberta aimed at increasing jobs, firms, revenue and economic diversification.
 - Establish and administer the Innovation Program to support Government of Alberta efforts to develop and implement innovative ideas and initiatives that improve service delivery to Albertans or encourage innovation in the Alberta economy.

2. Corporate Information and Communications Technology

- Linkage: Goal 6**
 - Develop and implement common business processes, and a mechanism for establishing priorities for ICT investments.
 - In collaboration with other ministries, set a clear and strategic corporate plan for the development and use of ICT.
- Linkage: Goal 7**
 - Complete the Alberta SuperNet build.
 - Develop and implement a common, shared ICT infrastructure.
- Linkage: Goal 8**
 - Provide Albertans with high-speed electronic services and online information access to Government by leveraging the investment of Alberta SuperNet and Service Alberta.

CORE BUSINESSES, GOALS, STRATEGIES AND MEASURES

Core Business One: Research and Innovation

GOAL ONE

In collaboration with universities and other research institutions, build the capability and capacity of Alberta's research system to achieve critical mass in areas of strategic priority.

- What it means** **Key outcomes** associated with this goal:
- A skilled workforce to support research and innovation.
 - Internationally recognized research capabilities in areas of strategic priority for long-term growth.
 - A supportive environment that encourages innovation, collaboration, and networks.

- Strategies**
- 1: Provide support for the recruitment and retention of key scientific personnel at Alberta public research institutions.
 - 2: Provide strategically targeted support for Alberta public research infrastructure.
 - 3: Encourage the growth of applied research capability in Alberta.
 - 4: Make investments that strengthen Alberta's science capability and capacity to support energy, ICT and life sciences and other areas of strategic priority. Examples of such investments include nanotechnology, genomics/proteomics, water sciences, bioinformatics/biomedical and wireless communications technologies.
 - 5: Encourage greater investment in Alberta research and innovation from industry and federal government sources.
 - 6: Increase collaboration and coordination among research performers, funders, and users.
 - 7: Work with other government departments, agencies and public institutions to coordinate science and research-related policies and programs.
 - 8: Promote science and technology awareness.
 - 9: Encourage youth to enter careers in science and technology.

Performance Measure	Last Actual (2002-03)	Target 2004-05	Target 2005-06	Target 2006-07
1. Total sponsored research revenue attracted by Alberta universities (\$ millions)	434	492	525	562
Source: Innovation and Science, Research Funding at Alberta Universities 2002-2003 Report.				

Build the capacity and capability needed to support an innovative and globally competitive energy sector.

What it means Key outcomes associated with this goal:

- Internationally recognized research capabilities in areas of strategic importance.
- Increased collaboration among energy research performers and energy producers.
- Increased joint investments in energy research by industry, the federal government and Alberta.

Strategies

- 1: Enhance the capacity for energy innovation through strong university and provincial research organization-based programs and high quality research teams.
- 2: Support field pilot projects that advance the deployment of novel clean energy technologies.
- 3: Work with partners to support research, development and demonstration in carbon dioxide and water management.
- 4: Support research into new catalysts for oil sands upgrading and value-added feedstocks.
- 5: Support feasibility studies on clean coal demonstration and related work on emissions reduction.
- 6: Work with partners to develop improved methods of recovery from both conventional and non-conventional hydrocarbon sources and to reduce their environmental footprint.
- 7: Support research into alternative sources for energy such as bioenergy, hydrogen and fuel cells.
- 8: Create one or more collaborative networks of innovation to accelerate technology development.
- 9: Maintain close working relationships with, and promote industry collaborative work through, such associations as the Petroleum Technology Alliance of Canada, the Canadian Clean Power Coalition, the Canadian Oil Sands Network for Research and Development, the Canadian Energy Research Institute, and Climate Change Central.
- 10: Ensure alignment with industry and other government ministries to promote technology advances in energy and to collaborate in the development and implementation of energy innovation programs with other providers within Canada, the United States and elsewhere.

Performance Measure	Last Actual (2003-04)	Target 2004-05	Target 2005-06	Target 2006-07
1. Ratio of other public and private investments in energy research to Innovation and Science investments in energy research*	New		To be determined	
Source: Innovation and Science, Strategic Investment Research Database.				

* Initial estimate is 6.16. Targets will be established in 2004-05.

Build the capacity and capability needed to support an innovative and globally competitive information and communications technology sector.

What it means Key outcomes associated with this goal:

- A skilled workforce to support ICT research and innovation.
- Internationally recognized research capabilities in areas of strategic importance.
- An environment that encourages innovation in ICT research, through collaborative research and networking.

Strategies

- 1: Work towards creating an ICT institute that will guide ICT research and innovation.
- 2: Recruit and fund the best researchers in ICT segments where Alberta can be a global leader. These segments include: broadband networks, including wireless; high performance computing; new computational models to support emerging technologies (genomics, nanotechnology, bioinformatics, etc.); and software and multimedia.
- 3: Encourage industry to fund Research Chairs at Alberta universities.
- 4: Collaborate with government partners to increase the number of Alberta graduates from ICT related fields of study.
- 5: Invest strategically in infrastructure, such as wireless test beds, that makes Alberta globally competitive.
- 6: In cooperation with partners, make strategic investments to enhance Alberta's ICT research and development capability.
- 7: Increase collaboration between public research institutions, industry and academia in Alberta and other jurisdictions in key enabling technologies.
- 8: Encourage industry to invest in research projects at public research institutions.
- 9: Develop and implement a communications plan to increase international awareness of Alberta's strengths in ICT.

Performance Measures	Last Actual (year)	Target 2004-05	Target 2005-06	Target 2006-07
1. Total number of ICT researchers and graduate students attracted to Alberta universities by iCORE Inc.				
Research Chairs (major awards)	13	17	17	17
Graduate Students	138	135	135	135
Source: iCORE Inc.	(2002-03)			
2. Ratio of other public and private investments in ICT research to Innovation and Science investments in ICT*	New (2003-04)		To be determined	
Source: Innovation and Science, Strategic Investment Research Database.				
3. Number of Albertans employed in the ICT sector	54,500 (2002)	54,000	55,350	58,118
Source: Statistics Canada, Labour Force Survey.				

* Initial estimate is 2.14. Targets will be established in 2004-05.

Build the capacity and capability needed to support an innovative and globally competitive life sciences sector.

What it means

Key outcomes associated with this goal include:

- A comprehensive approach to link and coordinate agriculture, environment, forestry, health and water research.
- A skilled workforce to support life sciences research.
- Internationally recognized research capabilities in areas of strategic importance.
- Research that contributes to the sustainable growth of the agriculture and food sector.
- Research that increases the global competitiveness and sustainability of Alberta's forestry sector.
- Life sciences development that harmonizes with Alberta values and goals.
- An environment that encourages innovation and collaborative networks in life sciences research.

Strategies

- 1: Work towards the creation of a Life Sciences Institute to guide life sciences research and innovation.
- 2: Work with partners to develop mechanisms to attract, train and retain high quality people in areas of opportunity for Alberta life sciences (e.g. bioproducts).
- 3: Participate with government ministries to develop a long term infrastructure plan to support life sciences research and innovation.
- 4: In cooperation with partners, make strategic investments to enhance Alberta's life sciences platform technologies, and agriculture and forestry life sciences research and development and innovation capability.
- 5: Develop mechanisms with industry and other partners, to lead and facilitate the alignment and coordination of research and innovation activity and funding in the areas of agriculture, forestry, environment, health and water.
- 6: Explore collaborative mechanisms to support research and development in prion sciences, with an initial focus on Bovine Spongiform Encephalopathy (BSE).
- 7: Develop and implement a communications plan to increase provincial, national and international profile of Alberta's strengths in the life sciences.
- 8: Work with partners to increase investments in high quality agriculture, forestry and platform technology research and technology development through new programs and strategic research networks.
- 9: Continue to work with other government ministries, industry and the universities to implement the Life Sciences Strategy.
- 10: Increase the magnitude and scope of life sciences education and engagement initiatives involving the public, government and industry.
- 11: Through the Alberta Agricultural Research Institute, continue to lead the implementation of the Alberta Agricultural Research and Innovation Strategic Framework in partnership with the agricultural research and development performers, funders and stakeholders, and in alignment with the Life Sciences Strategy.
- 12: Through the Alberta Forestry Research Institute, continue to work with industry and other research partners to implement a long-term strategic plan aligned with the Life Sciences Strategy.

Performance Measure	Last Actual (2003-04)	Target 2004-05	Target 2005-06	Target 2006-07
1. Ratio of other public and private investments in life sciences research to Innovation and Science investments in life sciences research*	New		To be determined	
Source: Innovation and Science, Strategic Investment Research Database.				

* Initial estimate is 1.87. Targets will be established in 2004-05.

GOAL FIVE

Build the capacity and capability needed to support an innovative and globally competitive economy in Alberta.

What it means

Key outcomes associated with this goal include:

- Increased commercialization of energy, ICT, and life sciences research in Alberta.
- Growth of ICT and life sciences sectors in Alberta.
- Commercialization of opportunities resulting from the Alberta Science and Research Authority's investment in energy research.

Strategies

- 1: Implement initiatives that support a broad technology commercialization and adoption strategy for Alberta.
- 2: Establish and administer the Innovation Program to support Government of Alberta efforts to develop and implement innovative ideas and initiatives that improve service delivery to Albertans or encourage innovation in the Alberta economy.
- 3: Facilitate appropriate management assistance/mentoring for startup and small businesses, in collaboration with the Ministry of Economic Development, municipalities and other technology commercialization partners.
- 4: Work with partners to encourage expatriates and skilled workers to relocate to Alberta.
- 5: Work collaboratively with partners to develop a plan to enhance entrepreneurial skills.
- 6: In collaboration with government departments, industry and research institutions, identify and market business opportunities and promote the Alberta Advantage in priority economic growth areas.
- 7: Provide and facilitate the establishment of facilities, equipment, test beds and expertise to help Alberta post-secondary institutions and industry develop and commercialize new products, processes and services.
- 8: Facilitate adoption of energy related intellectual property generated by projects funded by Alberta Science and Research Authority.
- 9: Attract and leverage industry research and development investment through TRILabs, industry, post-secondary institutions and Alberta Science and Research Authority initiatives.
- 10: Attract industrial partners and investment to Alberta and establish initiatives which encourage the creation of early stage seed/venture capital pools and knowledge transfer.
- 11: Attract industry investment and companies to commercialize technologies in Alberta.
- 12: Bring forward projects jointly sponsored by Alberta research institutes and the private sector for provincial and federal consideration and support.

- 13: Facilitate business partnerships and networks between Alberta industry, researchers and government to develop emerging technologies and bring them to market, collaborating with partners in other global jurisdictions.
- 14: Gather and provide competitive intelligence and information that helps industry make technology development decisions, and conduct environmental scans of Alberta's competitiveness in order to assist in defining appropriate policy recommendations and marketing actions to stimulate industry growth.

Performance Measures	Last Actual (2002-03)	Target 2004-05	Target 2005-06	Target 2006-07
1. Percentage of Canadian venture capital invested in Alberta. Source: Macdonald and Associates Ltd.	2.6%	2.8%	3.0%	3.4%
2. Number of innovative projects undertaken with support from the Innovation Program. Source: Innovation and Science	New	5	To be determined	

Core Business Two: Corporate Information and Communications Technology

The Government of Alberta, through the establishment of the Office of the Corporate Chief Information Officer in October 2003, will focus on transforming the delivery of government programs and services through innovative and cost effective use of information and communications technology (ICT).

The Office of the Corporate Chief Information Officer is focused on priorities that will contribute to more effective use of ICT resources and capabilities across all government departments and with their service delivery partners.

An integrated corporate information and communications technology (ICT) strategy based on common cross government standards, management practices and frameworks.

GOAL SIX

What it means Key outcomes associated with this goal include:

- Overarching corporate strategy that supports aligned investment and maximizes benefits to government.
- Corporate strategy for use of ICT in supporting the administrative needs of government.
- Corporate strategy for the use of ICT in supporting departments in meeting their program delivery.
- Corporate strategy for use of ICT in supporting departments and through them, their service delivery partners, in providing services to Albertans.
- Technical and business standards adopted across government.
- Standardized best practices approaches to system design, development and management.
- ICT projects consistently delivered on time and on budget.
- Providing value for money invested.

Strategies

Corporate Information and Communications Technology Strategy

- 1: Develop a corporate strategy that facilitates and enables improvement in the delivery of programs and internal government administration.
- 2: Work closely with departments, their service delivery partners, Alberta Corporate Service Centre, and Service Alberta to establish an integrated, coordinated and aligned strategy consisting of the following key components: Internal Administration, Program Delivery, and Service Delivery through Partners.

Common Standards and Best Practices

- 3: Proactively establish and implement cross-government business and technical standards to support the development and adoption of common business solutions.
- 4: Implement the Government of Alberta Enterprise Architecture (GAEA) Framework to minimize duplication and guide systems design.
- 5: Build on existing privacy protection principles and practices through the ICT privacy framework, the GAEA privacy architecture framework, and improved ICT privacy impact assessment policy and procedures.
- 6: Work with the Ministry of Government Services and all departments to develop a corporate electronic information management framework.

Common Management Standards and Practices

- 7: Establish and promote ICT project management best practices through the newly established Corporate Project Management Office.
- 8: Establish and promote ICT contract management best practices.
- 9: Define and establish core competency requirements for government staff necessary to professionally manage ICT resources.
- 10: Define, develop and implement appropriate education, training and communication initiatives to ensure the ICT competencies and skills are in place as and when needed.

Performance Measures	Last Actual (year)	Target 2004-05	Target 2005-06	Target 2006-07
1. Implementation of corporate standards.				
• Percentage of government desktop computers using Office 2000/Windows 2000.	87% (2002-03)	100%	100%	100%
• Percentage of new applications consistent with GAEA Guidelines for Enterprise Architecture.	New (2003-04)	75%	100%	100%
• Percentage of new applications compliant with Secure Access Guideline.	New (2003-04)	100%	100%	100%
Source: Innovation and Science, Office of the Corporate Chief Information Officer.				

GOAL SEVEN

An integrated and shared information and communications technology infrastructure.

What it means

Key outcomes associated with this goal include:

- A network (Alberta SuperNet) in place that includes 4,700 connections to government facilities, schools, health care facilities and libraries in rural and urban Alberta that facilitates the delivery of programs and services in new and innovative ways.
- High-speed, broadband access to 395 rural communities available through Alberta SuperNet.
- Enterprise network capability available to the health, learning and library communities across the province through Alberta SuperNet.
- High-speed, broadband enterprise network capability available to the government through Alberta SuperNet.
- Departments able to transform the delivery of their programs, reduce total costs, and facilitate information sharing using ICT as an enabler.

- Effective evaluation and adoption of new technologies to provide best value for money and time invested.

Strategies

SuperNet

- 1: Enable high-speed broadband access availability to the residents and businesses located in 395 rural Alberta communities through the construction of Alberta SuperNet.
- 2: Enable high-speed broadband availability to eligible schools, healthcare facilities, libraries and government facilities across Alberta.
- 3: Develop, adopt and implement a cross-government framework for applications which can utilize Alberta SuperNet to meet program and service delivery needs.
- 4: Coordinate and manage the planning, procurement and provision of telecommunication network services for the Government of Alberta.
- 5: Coordinate and manage Alberta SuperNet operations contract for the Alberta Government.

Integrated Government Information and Communications Technology Infrastructure

- 6: Identify and adopt best practice options for strategic relationships with the private sector to optimize government's ICT environment.
- 7: Optimize the government's ICT environment through standardization, rationalization and consolidation of ICT resources across government.
- 8: Establish and implement practices to evaluate and facilitate the adoption of appropriate technologies which enable improved program and service delivery.

Performance Measures

1. Extended Area Network.

Target: SuperNet services available in 2004 to 395 rural communities including connections to 883 schools, 201 health care facilities, 244 libraries, and 558 government facilities.

Extended Area Network Performance Measures/Indicators - Status as of January 15, 2004

Extended Area Network Activity	Total	In Place	In Progress	To Complete*
Inter-community Conduit (kms)	7601	5761	14	1840
Inter-community Fiber (kms)	7601	4712	114	2889
Inter-community Wireless (kms)	1814	76	366	1738
Points of Presence Buildings	402	118	12	284
Access Agreements	405	343	62	62
Community Engineering Plans	402	281	77	121
Community Construction	402	30	73	372
Wireless Towers	101	31	7	70
Wireless Shelters	83	26	2	57
Communities Fully Connected	402	11	92	391
Government Facilities Fully Connected	558	32	152	526
Health Facilities Fully Connected	201	16	64	185
Libraries Fully Connected	244	7	77	237
Schools Fully Connected	883	48	253	835

* Includes "In Progress" numbers.

2. Base Area Network.

Target: SuperNet services available from Bell West in 2004 to 1231 schools, 258 health care facilities, 65 libraries and 744 government facilities in 27 Base Area Communities.

Base Area Network Performance Measures/Indicators - Status as of January 15, 2004

Base Area Activity	Total	In Place	In Progress	To Complete*
Inter-city Fiber (kms)	2560	2555	5	5
Communities Completed	27	0	27	27
Government Facilities Connected	744	218	18	526
Health Care Facilities Connected	258	16	3	242
Libraries Connected	65	2	3	63
Schools Connected	1231	28	55	1203

* Includes "In Progress" numbers.

3. ICT Infrastructure, Rationalization and Consolidation - Implementation of corporate infrastructure services.

	Last Actual (2002-03)	Target 2004-05	Target 2005-06	Target 2006-07
Implementation of corporate infrastructure services				
• Directories	50	35	25	1
• E-Mail Systems	15	1	1	1
• Number of Servers	1,300	1,700	1,105	650
• Desktops using corporate standard configuration	Most of the 24,500+ GOA desktops have different configurations	8,000	20,000	24,000
• Servers using corporate standard configuration	400 Servers have different (unique) configurations	100	250	400
• Server Locations	350	300	150	10

Source: Innovation and Science, Office of the Corporate Chief Information Officer.

To support and improve the delivery of programs and services to Albertans and support improvements in the internal administration of government using ICT as an enabler.

GOAL EIGHT

What it means Key outcomes associated with this goal include:

- Increased ability of Albertans to obtain services electronically from the government when they choose to do so.
- Aligned approaches which build on common standards and frameworks to enhance service delivery to Albertans cost effectively.
- Elimination of unnecessary duplication in application development.
- Cost avoidance or mitigation related to the provision of services and in response to meeting changing needs.
- Provision of internal transaction oriented administration services optimized where ICT can facilitate cost effective process improvements.
- Productivity of the staff dedicated to supporting internal administrative functions improved where ICT can facilitate cost effective process improvements.

Strategies

Programs and services delivered by Government departments

- 1: Work with individual departments who have common clients in ways which respect confidentiality and privacy, to identify, evaluate, adopt and implement approaches to improve service delivery and/or reduce costs.
- 2: Identify the best practice technologies and standards that need to be implemented across government to optimize program delivery to Albertans.
- 3: Identify opportunities to transform the delivery of programs and services provided to Albertans by leveraging the capabilities of Alberta SuperNet.

Programs and services delivered through service delivery partners

- 4: Identify common opportunities and develop a joint approach for consideration by the government focused on leveraging investments, including investments in Alberta SuperNet, to mutual benefit.
- 5: Identify best practice technologies and standards that need to be implemented to optimize program delivery to Albertans.

Optimize the internal administration of government

- 6: Work with the Alberta Corporate Service Centre in re-engineering administrative business processes to improve the overall efficiency of government administration.
- 7: Identify opportunities to provide managers with access to relevant and timely information through the increased use of the Alberta Government Integrated Management Information System (IMAGIS) which would significantly improve efficiency and cost effectiveness.

Performance Measure

Under development. The Corporate Chief Information Officer will complete a survey of all departments in 2004-05 to establish priorities and baselines. The survey will be used to identify:

- common opportunities to improve service delivery and/or reduce costs,
- best practice technologies and standards,
- opportunities to transform the delivery of programs and services through Alberta SuperNet, and
- common opportunities in service delivery through service delivery partners.

CORPORATE ACTIVITIES

The following corporate divisions within the Ministry of Innovation and Science ensure resources are used effectively and efficiently to support Ministry goals and strategies:

- | | |
|--|---------------------------------|
| • Department Chief Information Officer | • Human Resource Services |
| • Communications | • Policy and Strategic Planning |
| • Finance Division | |

TRACKING EMPLOYEE SATISFACTION/UNDERSTANDING OF CONTRIBUTION

The Ministry will continue to track employee satisfaction and understanding of contribution to the Ministry Business Plan. Targets have been established for several measures, as indicated in the following table:

	Last Actual (2003-04)	Target 2004-05	Target 2005-06	Target 2006-07
Percentage of employees who know and understand how their work contributes to the achievement of their department business plan	78%	87%	93%	100%
Percentage of employees who are very/somewhat satisfied with their employment at Innovation and Science/ Government of Alberta	84%	88%	92%	95%
Percentage of employees who agree that Innovation and Science provides the support they need to acquire or develop knowledge and skills in their current job	70%	79%	82%	85%
Percentage of employees indicating that their organization provides expected outcomes for their work	62%	75%	80%	85%
Percentage of employees indicating that their organization helps them know and understand how well they are performing	64%	70%	78%	85%

CROSS-MINISTRY IMPACT

Ministry activities support the achievement of objectives and targets related to the following Cross-Ministry Initiatives:

- Aboriginal Policy Initiative
- Alberta Children and Youth Initiative
- Economic Development Strategy
- Health Sustainability Initiative

EXPENSE BY CORE BUSINESS

(thousands of dollars)

	Comparable 2002-03 Actual	Comparable 2003-04 Budget	Comparable 2003-04 Forecast	2004-05 Estimates	2005-06 Target	2006-07 Target
Research and Innovation	144,398	188,913	170,947	157,756	169,869	182,663
Office of the Corporate Chief Information Officer	54,421	51,202	53,277	61,614	76,459	76,549
MINISTRY EXPENSE	198,819	240,115	224,224	219,370	246,328	259,212

CAPITAL INVESTMENT BY CORE BUSINESS

(thousands of dollars)

	Comparable 2002-03 Actual	Comparable 2003-04 Budget	Comparable 2003-04 Forecast	2004-05 Estimates	2005-06 Target	2006-07 Target
Research and Innovation	2,157	3,414	3,414	3,646	3,687	3,688
Office of the Corporate Chief Information Officer	88,097	62,200	30,675	44,000	3,000	3,000
MINISTRY CAPITAL INVESTMENT	90,254	65,614	34,089	47,646	6,687	6,688

MINISTRY STATEMENT OF OPERATIONS

(thousands of dollars)

	Comparable 2002-03 Actual	Comparable 2003-04 Budget	Comparable 2003-04 Forecast	2004-05 Estimates	2005-06 Target	2006-07 Target
REVENUE						
Internal Government Transfers	185,144	127,497	127,497	110,285	70,285	68,785
Investment Income	931	840	840	840	840	840
Other Revenue	50,015	65,790	48,324	46,734	52,757	62,941
MINISTRY REVENUE	236,090	194,127	176,661	157,859	123,882	132,566
EXPENSE						
Program						
Research and Innovation						
Operations and Policy Implementation	7,930	8,340	8,340	11,466	11,576	11,686
Innovation Program	-	-	-	7,000	11,000	15,000
Alberta Science and Research Authority:						
Investing in Energy Research						
Alberta Energy Research Institute:						
- Climate Change	-	5,000	5,000	6,000	7,000	8,000
- Energy Research Strategy	6,855	6,940	6,940	8,595	12,595	12,595
Investing in Life Sciences						
Alberta Agricultural Research Institute	9,117	8,875	8,875	8,675	8,675	8,675
Alberta Forestry Research Institute	1,775	2,060	2,060	2,510	2,510	2,510
Investing in Information and Communications Technology						
iCORE Inc. (Informatics Circle of Research Excellence)	10,051	10,000	10,100	10,110	11,010	11,010
Investing in Research Capacity						
Alberta Science and Research Investment Program	40,567	39,222	39,222	33,495	28,495	25,995
Technology Commercialization Initiatives	3,530	3,675	3,675	3,615	3,615	3,615
Alberta Research Council Inc.:						
- Core Research Funding	26,575	27,135	27,135	27,082	27,082	27,082
- Contract Research	35,365	53,467	35,401	36,075	43,178	53,362
Office of the Corporate Chief Information Officer:						
Corporate CIO Office	-	-	-	439	439	439
Strategic Leadership and Services	11,312	10,576	10,576	11,292	11,287	11,287
Network Infrastructure and Management	35,286	32,428	34,503	29,351	29,351	29,351
Network/IMAGIS Amortization	5,299	5,429	5,429	17,399	32,249	32,339
Ministry Support Services	5,047	5,538	5,538	6,266	6,266	6,266
Valuation Adjustments and Other Provisions:						
Contributions to the Alberta Heritage Science and Engineering Research Endowment Fund*	-	21,430	21,430	-	-	-
Other Valuation Adjustments	110	-	-	-	-	-
MINISTRY EXPENSE	198,819	240,115	224,224	219,370	246,328	259,212
Gain (Loss) on Disposal of Capital Assets	(1,061)	-	-	-	-	-
NET OPERATING RESULT	36,210	(45,988)	(47,563)	(61,511)	(122,446)	(126,646)

* Contributions to the Alberta Heritage Science and Engineering Research Endowment Fund from Department of Innovation and Science have been restated for the Comparable 2003-04 Budget to reflect the actual reporting method used.

CONSOLIDATED NET OPERATING RESULT

(thousands of dollars)

	Comparable 2002-03 Actual	Comparable 2003-04 Budget	Comparable 2003-04 Forecast	2004-05 Estimates	2005-06 Target	2006-07 Target
Ministry Revenue	236,090	194,127	176,661	157,859	123,882	132,566
<i>Inter-ministry consolidation adjustments</i>	(200,154)	(145,931)	(141,220)	(124,441)	(85,082)	(84,761)
Consolidated Revenue	35,936	48,196	35,441	33,418	38,800	47,805
Ministry Program Expense	198,819	240,115	224,224	219,370	246,328	259,212
<i>Inter-ministry consolidation adjustments</i>	(15,010)	(39,864)	(35,153)	(14,156)	(14,797)	(15,976)
Consolidated Program Expense	183,809	200,251	189,071	205,214	231,531	243,236
Gain (Loss) on Disposal of Capital Assets	(1,061)	-	-	-	-	-
CONSOLIDATED NET OPERATING RESULT	(148,934)	(152,055)	(153,630)	(171,796)	(192,731)	(195,431)

CAPITAL INVESTMENT BY PROGRAM

(thousands of dollars)

	Comparable 2002-03 Actual	Comparable 2003-04 Budget	Comparable 2003-04 Forecast	2004-05 Estimates	2005-06 Target	2006-07 Target
Research and Innovation						
Operations and Policy Implementation	-	-	-	300	300	300
Alberta Research Council Inc.	2,157	3,414	3,414	3,346	3,387	3,388
Office of the Corporate Chief Information Officer						
Alberta SuperNet	85,357	58,700	27,700	41,000	-	-
Strategic Leadership and Services	1,506	2,500	2,500	1,750	1,750	1,750
Network Infrastructure Management	1,234	1,000	475	1,250	1,250	1,250
MINISTRY CAPITAL INVESTMENT	90,254	65,614	34,089	47,646	6,687	6,688

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